

WE CLAIM:

1. A pultruded part comprising:

a wall having a first surface and a second surface spaced by a thickness of the part, the wall extending longitudinally in a pultrusion direction and

5 having a transverse width transverse to the longitudinal pultrusion direction;

fiber layers within the wall;

a thermo-set, cross-linked poly-urethane permeated through the fiber layers;

the fiber layers including at least one first layer of fibers having fibers

10 extending only in the longitudinal pultrusion direction;

the fiber layers including one or more second layers;

the or each second layer consisting solely of a layer of fibers such that the poly-urethane is permeated through the layer of fibers between the fibers;

15 the or each second layer having fibers with at least portions thereof extending transverse to the longitudinal direction;

the or each second layer of fibers having a total quantity of fibers in the or each second layer which is of the order of or less than 0.5 ounces per square foot.

2. The pultruded part according to Claim 1 wherein at least one

20 part of the wall is reinforced through its thickness solely by fibers extending only in the longitudinal pultrusion direction.

3. The pultruded part according to Claim 1 wherein the or each second layer of fibers comprises an entangled layer of staple fibers.

4. The pultruded part according to Claim 1 wherein the or each second layer of fibers is a scrim or mesh having openings for penetration of the polyurethane between the fibers.

5. The pultruded part according to Claim 1 wherein the wall includes a leg portion thereof connected to a main body portion of the wall only at one end of the leg so as to define a second free end of the leg and wherein reinforcing fibers in the leg consist solely of fibers extending only in the longitudinal pultrusion direction.

6. The pultruded part according to Claim 5 wherein the leg portion has a wall that is thicker than that of the main body portion.

7. The pultruded part according to Claim 1 wherein the or each second layer includes fibers which are formed of metal strands which provide both transverse strength and the characteristic of electrical conductivity and/or ferromagnetism.

8. The pultruded part according to Claim 1 wherein the or each second layer of fibers has a total quantity of fibers in the layer which is of the order of or less than 0.25 ounces per square foot.

9. The pultruded part according to Claim 1 wherein the or each second layer of fibers each has a total quantity of fibers therein which is of the order of 0.1 ounces per square foot.

10. The pultruded part according to Claim 1 wherein the wall defines a peripheral wall fully surrounding a hollow interior such that the first surface

faces outwardly and the second surface faces inwardly and wherein the reinforcing fibers consist only of:

a first layer formed wholly of longitudinal fibers where the fibers of the first layer extend only in the longitudinal pultrusion direction; and

5 a second layer formed wholly of fibers such that the polyurethane is permeated through the layer of fibers between the fibers of the second layer;

wherein the second layer has fibers with at least portions thereof extending transverse to the longitudinal direction;

10 wherein the first and second layers are in contact at a location between the first and second surfaces;

wherein the first layer is located at the first surface such that some of the longitudinal fibers thereof are located at the first surface;

and wherein the second layer is located at the second surface such
15 that some transverse fiber portions are located at the first surface and such that the first layer is spaced from the second surface over the whole of the second surface by the second layer.